

ABSTRACT

A code comprised of at least one code element specifies at least one non-temporal characteristic of at least one pulse. A code element can be mapped to a value within a layout comprising a range of pulse characteristic values divided into components, sub-components, and/or smaller components (ad infinitum). A code element can be mapped to a value within a layout comprised of discrete values. The code element can be an integer or a floating-point number and may be used in conjunction with an absolute or relative offset value. The code element values can be subdivided into parts that individually or in combination specify non-temporal pulse characteristics. The code element can be used to specify a number of characteristics of a pulse, including but not being limited to: pulse polarity; pulse amplitude; pulse width; pulse type; and pulse position in time. The type of the pulse indicates whether the pulse is a square wave pulse, sawtooth pulse, Haar wavelet pulse, gaussian monopulse, doublet pulse, triplet pulse, or set of wavelets. Various approaches are used to specify non-temporal pulse characteristics.